



## Memorandum

**To:** Rich Muza, Remedial Project Manager, United States Environmental Protection Agency (USEPA)

**From:** Mike Allen, CDM Smith Project Manager

**Date:** November 10, 2013

**Subject:** Evraz Oregon Steel Mills Source Control Meeting

On November 4, representatives of the United States Environmental Protection Agency (EPA), the Oregon Department of Environmental Quality (ODEQ) and CDM Smith met to discuss EPA comments on the source control decision for the Evraz Oregon Steel Mill (EOSM). People attending the meeting were:

- Rich Muza, EPA
- Jennifer Sutter, ODEQ
- Matt McClincy, ODEQ
- Henning Larsen, ODEQ
- Eric Blischke, CDM Smith
- Steve Dent, CDM Smith

The meeting discussion focused on whether additional sampling was necessary to support the source control decision or whether the talking points provided by ODEQ provided sufficient multiple lines of evidence support for a no further action determination for the groundwater pathway.

It was noted that the concentrations of manganese and arsenic in beach wells exceeded source control criteria as established in the Joint Source Control Strategy and site-specific background as measured in groundwater upgradient of the EOSM site. ODEQ made the argument that based on concentration gradients observed at the site, further attenuation of manganese concentrations would be expected as the manganese plume migrated towards the Willamette River. EPA did not agree that sufficient data was available to support this determination. Steve Dent noted that the kinetics of manganese oxidation and precipitation are slow and that a rapid decline in dissolved manganese levels may not occur.

USEPA SF



1469793

ODEQ focused the discussion on MW-23. However, EPA noted that screening criteria for manganese and arsenic were exceeded in multiple beach wells.

It was further noted that the manganese present in groundwater at the EOSM site is not solely the result of reducing conditions solubilizing manganese but that slag contaminated with manganese was placed as fill at the site and that the fill material came into contact with and mixed with the historical native wetlands at the site.

There was discussion of the need for transition zone water off shore of the EOSM site or whether the beach well data could be considered a surrogate for TZW. Although there was no resolution of this, it was agreed that because we were above screening criteria in the beach well, the next logical step is to step out and collect TZW.

There was also discussion of background estimates. It was generally agreed that both the LWG TZW data set and the upgradient groundwater samples had limitations as background estimates. The TZW data set represents TZW collected from contaminated areas. The groundwater data set is not likely representative of TZW due to geochemical considerations. It was agreed that the best approach would be to move downstream to the wetland area just downstream of EOSM and collect groundwater and/or TZW to develop a more representative estimate of background.

The discussion focused primarily on manganese because the ecological screening criterion for arsenic was not exceeded. It was noted that the manganese evaluation was focused on a smaller exposure scale relevant to protection of the benthic community while the arsenic screening criteria are based on a larger exposure scale relevant to the human health fish consumption exposure pathway.

It was noted by ODEQ that EOSM is planning a source control action to address bank soils contaminated with slag and PCBs. This action is currently planned for 2015 at the earliest. It was agreed that post remediation monitoring of the source control action should include TZW.

Finally, there was discussion of the need for ongoing monitoring of MW-11. This sampling location is impacted by the construction of the stormwater retention pond. ODEQ previously gave EOSM permission to eliminate MW-11 from the groundwater monitoring program. Following the clarification about the impact of the retention pond, EPA agreed with this approach.